

The next generation of data recorders offer flexible packaging ideas coupled with versatility and efficiency. Each SLICE component uses state-of-the-art technology to create the most advanced data recording system suitable for use in any application. Choose either **SLICE MICRO** or **SLICE NANO** without compromising features or electronics.



CREATE YOUR OWN SLICE SYSTEM

SLICE NANO system

26 x 31 mm footprint (3 channels shown)

SLICE MICRO system

42 x 42 mm footprint (6 channels shown)

FEATURES

- The Base SLICE contains the microprocessor, and control circuits for managing multiple SLICE modules.
- Bridge and Sensor SLICE modules can be added to the Base SLICE, creating the system size and function needed.

FUNCTION

External Sensor Interfaces include:

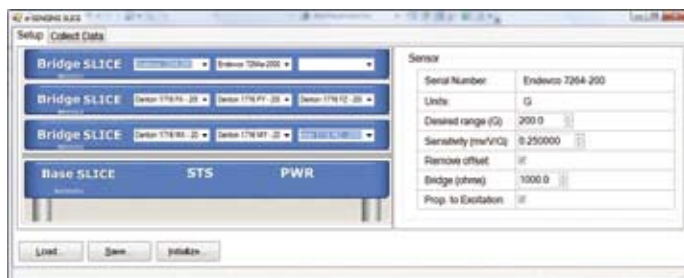
- Bridge
 - MEMS sensors
 - Strain and load
 - Voltage
- Temperature
- Digital/frequency
- IEPE Sensors

Embedded Sensors include:

- (SLICE MICRO only)
 - Triaxial accelerometer
 - Triaxial ARS

SOFTWARE

- Easy setup and Windows® interface
- Extensive realtime and plotting capabilities
- Sensor database and test setup options
- ISO, Excel and other export options



APPLICATIONS

SLICE architecture is designed to meet the needs of a broad range of testing applications.

- **Automotive**
 - Ride and handling
 - Sound measurement
 - Pedestrian head and leg form
 - Crash Testing
- **Combat & Sports Helmets**
 - Blast, injury acceleration and pressure
- **Generic Micro Data Logger**
 - Packaging recorder
 - Embedded machine monitor
- **In-flight Aerospace Test**
 - Record vibration, strain, pressure, temperature
 - Parachute testing



SLICE SPECIFICATIONS

Base SLICE MICRO



Base SLICE NANO



Data Recording

Storage Technique: recorder or circular buffer modes available. Any portion of the memory may be allocated to pre-trigger data.

Memory Type/Capacity: non-volatile flash up to 4 GB

Triggering Systems

Hardware Triggering: Isolated contact closure and logic-level input

Level Trigger: software programmable from any channel(s) within each **SLICE** module

Power Requirements

Supply Voltage: 7-15 VDC

Maximum Power: 100 mA.

Each additional module requires additional power (depends significantly upon connected sensor load).

Power Control: remote power control input for switching unit on and off

Protection: reverse current protection

Communication Protocols

Module to Module: USB

PC to Base SLICE: USB

PC Control

DTS provided software: standard graphic based software

Operating systems: Windows® XP, Vista

Environmental

Operating Temperature: -40 to 70°C

Shock: 5000 g 4 msec half sine (options for 50000 g)

Bridge SLICE MICRO



Bridge SLICE NANO



Signal Conditioning

Number of Channels: 3 differential, programmable

Input Range: ±2.4 volts (2.5 volt center)

Bandwidth: D.C. to 40 KHz

Gain Range: 1.0 to 1280

Auto Offset Range: 100% of effective input range

Bridge Support: software switchable completion

Shunt Check: emulation method

Analog to Digital Conversion

Type: 16-bit SAR, one ADC per channel

Maximum Sampling Rate: 150K samples/sec/channel

Excitation

Method: one 20 mA current-limited source/channel

Available Voltage Levels: 2.5, 5.0 volts

On/Off Control:

- 1) Shut down when not recording
- 2) Optional pulsed excitation for low sampling rates

Anti-alias Filter

Adjustable Low Pass: 5-pole Butterworth set under software control, 1 Hz - 40 KHz

SAE J211: system response exceeds SAE J211 requirements

Accelerometer SLICE MICRO



3 axis, 50 to 2000 g options

ARS SLICE MICRO



3 axis, 300 to 50000 deg/sec options